

C O P Y

Basic Hq. 15 th AF, MAFB, 9 May 56 to Comdr WADO, Subject: "Chaff"

WOTSF-2

1st Ind

HQ WRIGHT AIR DEVELOPMENT CENTER, Wright-Patterson AFB, Ohio, 24 May 56

TO: Commander, Fifteenth Air Force, ATTN: Office of the Surgeon  
March Air Force Base, California

1. The lead content of chaff currently being used remains the same as stated in the opinion of 1952. The possibility of lead poisoning resulting from ingestion of chaff is very remote. As reported in the 1942 Year Book of Agriculture, USDA, page 643, the quantity of lead acetate which is fatal for cattle is 50 to 100 grams. This amount of lead acetate represents 27.3 to 54.6 grams of metallic lead. To produce acute toxicity, a cow would have to eat and absorb all of the lead contained in at least 1.55 sq meters of the foil submitted. This area, 1.55 sq meters, is comparable to the surface area of a standard two pedestal office desk plus that of 19 x 24 inch desk blotter. The likelihood of a cow consuming this amount of chaff is indeed, very small.

2. The possibility of long term chronic effects cannot, at this time, be completely ignored. A suggested method of evaluation of such chronic exposure is to obtain long bones of animals whose death is attributed to chaff poisoning. These bones should be sawed longitudinally on a band saw to provide a central section approximately 1 cm thick showing cortex and medullary cavity. Roentgenograms may be made at the Base Hospital and the staff roentgenologist consulted to evaluate the possible significance of any radiopaque zones. Roentgenograms of "normal" bones, prepared in the same manner as those above, should be available to compare in evaluation of the lesions, if any. Specimens with roentgenological findings suggestive of lead deposits should then be analyzed for lead contents.

3. A revision of the specification for chaff, soon to become effective, calls for a 75% reduction of lead content. This revision is based on other than toxicity considerations.

FOR THE COMMANDER:

cc TO

Command Veterinarian, SAC

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